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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/380,812	11/23/1999	KAZUROU OKUZAWA	00169/P17508	3098

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EXAMINER
KNABLE, GEOFFREY L

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

db9

# Office Action Summary

Application No.

09/380,812

Applicant(s)

OKUZAWA ET AL.

Examiner

Geoffrey L. Knable

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. Claims 1, 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 3, reference is made to the chloroprene being the "main ingredient" of the composition. It however is not entirely clear that the scope of protection afforded by this reference to a "main" ingredient can be readily ascertained. In other words, it is not clear what amounts constitute or characterize an ingredient as "main". As such, the scope of these claims would seem to be indefinite.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sato et al. (US 5,753,727).

Sato et al. discloses an adhesive based upon a chloroprene rubber as a "main ingredient" (col. 2, lines 54-55) that further includes a chlorinated polyolefin, this adhesive being designed in particular to bond with polypropylene (col. 1, lines 5-12; col. 2, lines 50-58). As to the specific components, for the chlorinated polyolefin, chlorinated polypropylene at amounts of 0.1 to 30 parts per 100 part chloroprene is suggested (col. 4, lines 1-15), this satisfying the claimed requirements with respect to this component. As to the chloroprene rubber, carboxyl group containing chloroprene rubbers are clearly disclosed as suitable - note esp. examples 15-17 in table 3. It is noted that it is not clear whether the "chlorinated polyolefin" in these examples is a chlorinated polypropylene (in which case these examples alone would seem to teach a composition that meets the

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claims). The reference as a whole however clearly suggests chlorinated polypropylene. Since, however, the scope of "main ingredient" is not entirely clear, it is difficult to make a complete and accurate comparison with the prior art. In any event, this reference is considered to teach or certainly render obvious an adhesive including carboxyl containing chloroprene rubber and chlorinated polypropylene, the adhesive being suitable for bonding polypropylene, as claimed.

4. Claim 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 5,753,727) as applied to claim 1 above, and further in view of the admitted state of the prior art.

As already noted, Sato discloses an adhesive that is considered to meet or render obvious that claimed, this adhesive further having particularly good properties for bonding to polypropylene. Specific application to bonding to polypropylene speaker frames is not however described. In the background of the specification, however, it is indicated that parts are conventionally bonded to speaker frames with adhesives and further that such frames are conventionally formed from polypropylene. In light of the fact that the Sato et al. adhesives have particular applicability in bonding to polypropylene (a hard to bond material), it would have been prima facie obvious to use this adhesive to bond to the conventional polypropylene speaker frames with an expectation of providing a particularly suitable and effective bond. As to claim 5, it is noted that the "consisting essentially of" language is not considered to exclude the additional component of the Sato et al. adhesive, namely that suggested as improving the heat resistance of the composition (col. 2, lines 50-60), as this compound is not

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considered to materially affect the basic and novel characteristics of the composition, i.e. a chloroprene rubber based adhesive that effectively bonds to polypropylene rubber.

5. Claims 1, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the prior art taken in view of Smith (US 3,347,837) and/or the Kirk-Othmer Encyclopedia of Chemical technology excerpt (particularly sections 3.4 and 8.2) and optionally further in view of Sato et al. (US 5,753,727) and/or the abstract for JP 1-153781 (cited by applicant).

In the background portion of the specification, it is described that solvent base synthetic chloroprene rubber adhesives are conventionally used to bond parts of a speaker to the frame, the frame also conventionally being formed from polypropylene. Further, test example 1 detailed in table 1 in the specification is described as "an adhesive composition in a conventional synthetic chloroprene rubber adhesive," it being noted that this adhesive includes synthetic chloroprene rubber (neoprene AD) as well as chlorinated polypropylene at amounts as claimed. As such, it is considered to be admitted to be known to use solvent base synthetic chloroprene rubber adhesives, these conventionally including chlorinated polypropylene, to bond parts to speaker frames. This admitted prior art, however differs from that claimed in that it does not suggest use of a carboxylated chloroprene rubber (e.g. neoprene AF).

Smith is directed to carboxylated chloroprene rubber and in particular evidences an understanding that such polymers may be used in place of conventional chloroprene polymers in many applications, they being "most useful for the preparation of solvent adhesives exhibiting good storage stability and capable of producing bonds having

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outstanding high temperature cohesive strengths" (col. 3, lines 56-62). The Kirk-Othmer Encyclopedia of Chemical technology excerpt relating to Polychloroprene (particularly sections 3.4 and 8.2) further similarly evidence an understanding that "a minor amount of comonomer provides beneficial functional groups, eg, carboxylated adhesives, where the comonomer promotes adhesion and cohesive strength" (section 3.4) and carboxylated chloroprene polymers such as neoprene AF provides "higher bond strength, especially hot bond strength" (section 8.2). In light of this apparent well known fact that *carboxylated* chloroprenes provide improved bond strength and particularly hot bond strength, it would have been prima facie obvious to utilize carboxylated forms of chloroprene in the otherwise conventional adhesive for the expected improvements in bonding.

Sato et al. (col. 1, lines 5-12; col. 2, lines 50-58) as well as the abstract for JP '781 have been cited as providing additional evidence that similar chloroprene/chlorinated polypropylene type adhesives are apparently known to be particularly suitable and effective in bonding to polypropylene in particular, this providing additional evidence that the artisan would not be led away from use of such adhesives when using polypropylene speaker frame materials.

6. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

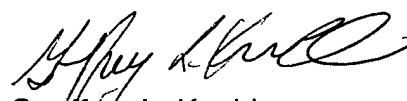
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JP 6-306341 to Sunstar discloses a chloroprene/chlorinated polypropylene based adhesive that is suitable for bonding to polypropylene but is otherwise no more relevant than the applied prior art.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 703-308-2062. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



Geoffrey L. Knable  
Primary Examiner  
Art Unit 1733

G. Knable  
November 8, 2003